

**London International Youth Science Fortnight  
1984**

## London International Youth Science Fortnight

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### Originator

Philip S. Green, MBE

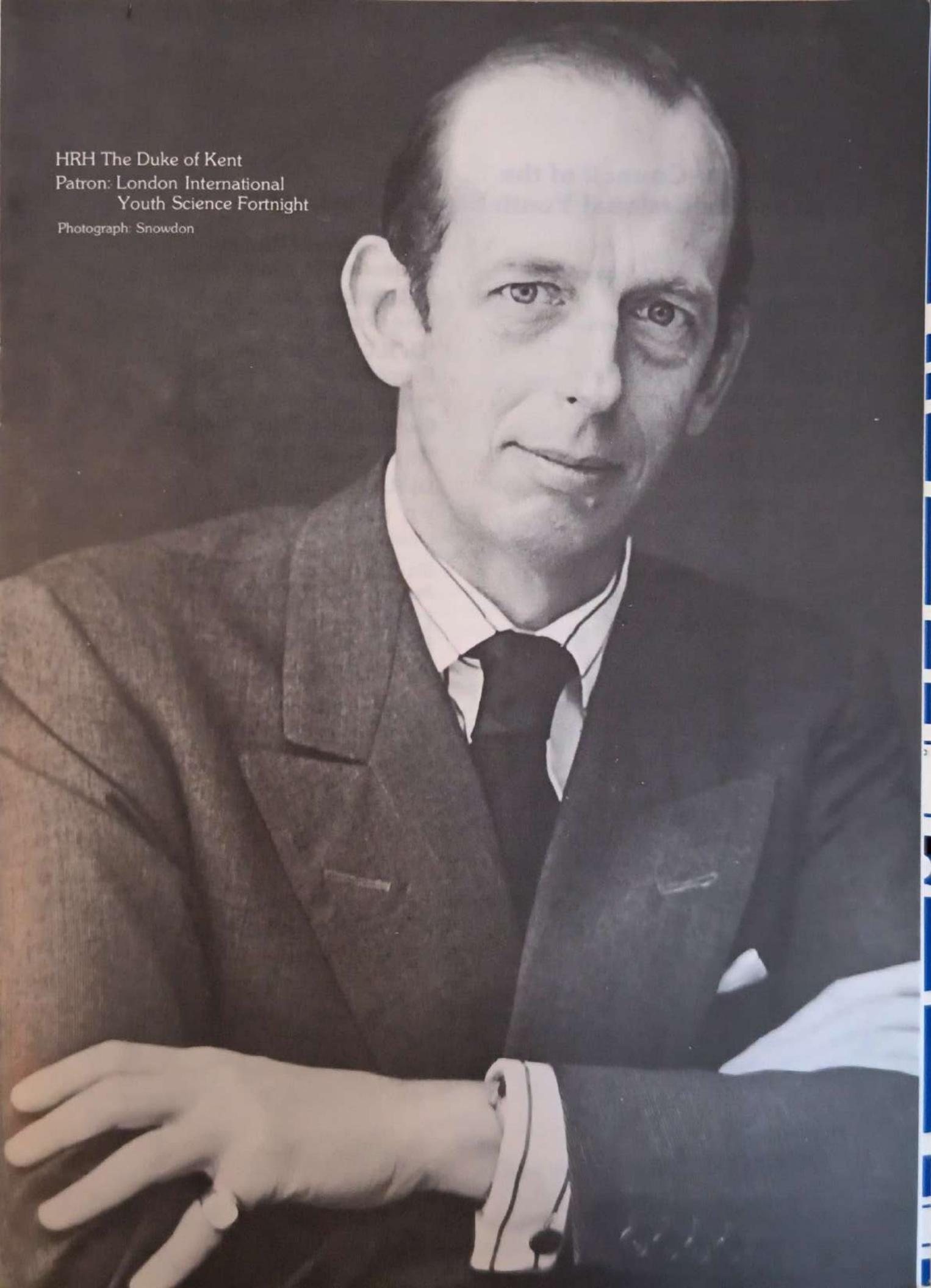
### Director

George McGowan

The aim of the Science Fortnight is to give a deeper insight into science and its applications for the benefit of mankind and to develop a greater understanding between young people of all nations.

HRH The Duke of Kent  
Patron: London International  
Youth Science Fortnight

Photograph: Snowdon



## Consultative Council of the London International Youth Science Fortnight

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*\*Members of the working group which  
plans the programme of the Science  
Fortnight.*



## 10 DOWNING STREET

THE PRIME MINISTER

Since the first London International Youth Science Fortnight in 1959 we have seen some extraordinary developments in science: integrated circuits on silicon, the understanding of the genetic code, carbon fibres, and astronomical observations in space. Many of these developments have already led to applications which have been of great benefit to mankind.

But the young people of today, far from just looking back at a great era in science, are all looking forward to even more exciting science, to further unravelling of the secrets of nature and to new applications which have hardly been dreamt of. There has never been a better time to start a scientific career: the scientific opportunities seem limitless, the techniques and instruments are astonishing in their power, and the world is more than ever looking to science to help improve the health, nourishment, economic well-being and quality of life for the people of our planet.

Science has always been international in its outlook and activities. Today the dynamism and growth of science owe much to international collaboration in experiments and to international meetings to discuss and debate the latest scientific results.

On behalf of Her Majesty's Government, I want to welcome you to London. I hope you have an exciting meeting and that you make friendships with young scientists which will not only enlarge and develop your interest in science but will also serve as an introduction to the international world of science.

Margaret Thatcher

## Acknowledgments

The Science Fortnight expresses grateful thanks to all who have generously assisted in the organisation of the Twenty Sixth meeting, and in particular to

The Speakers, Lecturers, Chairman and Discussion Group Leaders, whose contribution is invaluable.

The Consultative Council for its advice, and the Working Group for its assistance with the planning of the programme.

The Council and Staff of the Institution of Electrical Engineers for providing premises and facilities for lectures and meetings.

The many industrial companies, research establishments, university departments, museums etc who welcome participants for visits and lectures.

The British Association for the Advancement of Science, for advice on programme planning and other matters through the good offices of Miss Joan H. Dring.

The Wardens, Bursars and Staff of the Halls of Residence providing accommodation and meals and the University of London Union for the use of its facilities.

The United Kingdom Local Education Authorities, Schools and Colleges, who have met the whole or part of the fees for students from Britain.

Those who grant scholarships to make possible the participation of students from overseas, including British Airways, The British Council, the United Kingdom National Commission for Unesco, Barclays Bank International and many others.

## Industrial, Commercial & Other Sponsors

Special thanks are due to the following who have helped to make possible the attendance of students from the United Kingdom (list compiled on 18 May, 1984 and therefore incomplete.)

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Apologies are tendered to any omitted from the above lists.

**Twenty Seventh  
London International Youth Science Fortnight  
25 July to 8 August, 1984**



*A Chinese proverb says that 'A hundred hearings cannot be compared with one seeing.' Perhaps its message would be as readily understood if we reversed it so that it read, 'A hundred seeings cannot be compared with one hearing.' Either way 'hearing' and 'seeing' are passive acts, and education throughout the world tends to be concentrated on imparting knowledge with too little chance to question and develop a true understanding.*

*The opportunities the Science Fortnight programme provides for its participants are therefore probably without precedent in their lives. Here there are chances to discuss, to debate, to question, to query and to argue not only with the speakers and those demonstrating their work, but also amongst those from other countries taking part. In short, the programme seeks the active involvement of the participants.*

*I hope that you will seize these opportunities, and I hope that you will see them also as your means to convey your thinking and aspirations, for it is by coupling the hundreds of 'hearings' which the Science Fortnight will bring you with your own 'seeing' of the views and reactions of others that you will gain most from the meeting.*

A handwritten signature in black ink, appearing to read "George McGowan". The signature is fluid and cursive, with a long horizontal line extending from the end of the "n" in "George".

**George McGowan**  
Director  
London International Youth Science Fortnight

# DAILY PROG

<b>Arrivals</b>		
<b>Orientation &amp; Briefing in Halls of Residence</b>		
<b>Wednesday</b> <b>25 July</b>	20.00	
<b>Thursday</b> <b>26 July</b>	11.00 14.15 20.00	*Opening Ceremony *Lecture/Demonstration: 'Explosives' Welcome Disco at the Empire Rooms
<b>Friday</b> <b>27 July</b>	20.00	Half Day Visits to Research and Industrial Establishments and to University Departments Students' Topics
<b>Saturday</b> <b>28 July</b>	10.00 16.30	*Lecture: 'Cancer Medicine — the Reality Behind the Headlines' Optional Half Day Sightseeing Tour of London Inter Hall Swimming Gala at University of London Union Optional Theatre and Concert Visits
<b>Sunday</b> <b>29 July</b>	09.00 20.00	Optional Day Excursion to Stratford upon Avon Feature Film
<b>Monday</b> <b>30 July</b>	10.00 14.15 20.00	University Lectures *Question Time with Members of Parliament Students' Topics
<b>Tuesday</b> <b>31 July</b>	20.00	Day Visits to Research & Industrial Establishments *Lecture: 'Processing Pictures with Computers'
<b>Wednesday</b> <b>1 August</b>	10.00 14.15 20.00	Workshops *Lecture: 'Forecasting the World's Weather' Students' Topics

\*at the Institution of Electrical Engineers Savoy Place, London WC2

# PROGRAMME

<b>Thursday</b> <b>2 August</b>	08.00	Depart for Day visits to Cambridge & Oxford
	10.00	Visits to University Research Establishments
	12.45	Lunch at Downing College (Cambridge) St Catherine's College (Oxford)
	14.15	City and University College Tours
	20.00	Topics for Tonight
<b>Friday</b> <b>3 August</b>	10.00	Visits to Natural History and Science Museums at South Kensington
	20.00	International Evening at Manning Hall University of London Union
<b>Saturday</b> <b>4 August</b>	10.00	*Debate: 'The Nuclear Question'
	14.15	Inter-Hall Rounders in Regent's Park Optional Theatre and Concert Visits
<b>Sunday</b> <b>5 August</b>	09.00	Optional Day Excursion to Hampton Court Palace & Windsor Castle
	20.00	Feature Film
<b>Monday</b> <b>6 August</b>	10.00	*Participants' Forum I
	14.15	*Lecture/Demonstration 'Inswingers, Bananas & Splits: The Physics of Sport'
	20.00	Feedback: A critique of the Science Fortnight
<b>Tuesday</b> <b>7 August</b>	10.00	*Participants' Forum II
	14.15	*Closing Ceremony
	20.00	Farewell Disco at the Empire Rooms

With the exception of the Lecture on 31 July events taking place after 18.00 are optional.

## Speakers at the Institution of Electrical Engineers

<b>Thursday</b> <b>26 July</b>	11.00	Opening Ceremony Speakers include: The Rt Hon Dr David Owen, MP Leader: Social Democratic Party Dr Richard O'Kennedy, PhD National Institute of Higher Education, Dublin
	14.15	Lecture/Demonstration: ' <i>Explosives</i> ' Dr D.R. Marshall, BSc, PhD (St Andrews), DPhil (Oxon) Department of Chemistry, University College of North Wales
	10.00	Lecture: ' <i>Cancer Medicine — The Reality Behind The Headlines</i> ' Dr Robert Buckman, BA, MB, BChir, MRCP
<b>Monday</b> <b>30 July</b>	14.15	Question Time with Members of Parliament Andrew Bowden, MBE MP (Conservative) W.E. Garrett, MP (Labour) Stephen Ross, MP (Liberal)
<b>Tuesday</b> <b>31 July</b>	20.00	Lecture: ' <i>Processing Pictures with Computers</i> ' Paul Redstone, MA Consultant, Aerospace Group, Logica UK Ltd
<b>Wednesday</b> <b>1 August</b>	14.15	Lecture: ' <i>Forecasting the World's Weather</i> ' Sir John Mason, CB DSc FRS Centre for Environmental Technology Imperial College, London
<b>Saturday</b> <b>4 August</b>	10.00	Debate: ' <i>The Nuclear Question</i> ' Chairman: The Revd Edwin A. Morris Speakers include: Professor John Beckman Professor W.F. Gutteridge Professor Sir Rudolf Peierls Professor J. Rotblat
<b>Monday</b> <b>6 August</b>	14.15	Lecture/Demonstration: ' <i>Inswingers, Bananas &amp; Splits — The Physics of Sport</i> ' Dr Brian Delf Department of Physics, University College Cardiff
	10.00	Participants' Forum I Theme: ' <i>For What Use is Science if Mankind does not survive?</i> '
<b>Tuesday</b> <b>7 August</b>	10.00	Participants' Forum II
	14.15	Closing Ceremony

## University Lectures

<b>Monday 30 July</b>	<b>10.00</b>	<b>Group 1</b>	<i>'Achievements with Anti-matter'</i> R.E. Ansorge, MA PhD Cavendish Laboratory University of Cambridge
		<b>Group 2</b>	<i>'An Actuary's View of Financial Planning'</i> S. Haberman, MA PhD FIA Department of Mathematics The City University, London
		<b>Group 3</b>	<i>'The Chemistry of New Energy Sources — or when will it all run out?'</i> D.B. Hibbert, BSc PhD(London) C.Chem, MRSC Department of Chemistry Royal Holloway & Bedford Colleges
		<b>Group 4</b>	<i>'Breast Cancer — Prevention or Cure'</i> C. Wells MA MB BChir Department of Histopathology University of Oxford

## Workshops

Participants are allocated to workshops in accordance with their expressed scientific interests. A summary of each workshop will be supplied individually.

**Wednesday 1 August** 10.00 Workshop A '*Nuclear & Renewable Energy Research in Britain*'  
H.A. Cole, CEng, MIERE

Workshop B '*Another Way of Applying Mathematics*'  
G.W. Goodall, BSc FSS

Workshop C '*Traditional medicine — is it worth studying?*'  
P.J. Hylands, PhD CChem MRSC

Workshop D '*Recent Concepts in the Treatment of Sports Injuries*'  
D.S. Muckle, MB BS(Dunelm) FRCS MS MD

Workshop E '*Food and Science and Nutrition — How the food industry makes the foods you like*'  
D.P. Richardson, BSc MSc PhD

Workshop F '*Aspects of Solar Energy Conversion*'  
A. Mills

## Half Day Visits to Industrial & Research Establishments and to University Departments

### Friday, 27 July

Chelsea College, London Department of Pharmacy	National Physical Laboratory Teddington
City University Department of Aeronautical Engineering	Royal Free Hospital Hampstead
General Electric Company Ltd Hirst Research Centre	Royal Naval College, Greenwich Department of Nuclear Science
Institute of Cancer Research Chester Beatty Research Institute	J Sainsbury, plc Laboratories
Imperial College of Science & Technology Department of Chemical Engineering & Chemical Technology	St Thomas's Hospital Department of Clinical Chemistry
King's College, London Department of Biological Sciences	University College London Department of Electronic & Electrical Engineering
National Institute for Medical Research Mill Hill	Zoological Society of London Institute of Zoology

## Day Visits to Industrial and Research Establishments

### Tuesday, 31 July

Atomic Energy Research Establishment Harwell	Roche Products Ltd Welwyn Garden City
British Petroleum Company plc BP Research Centre, Sunbury on Thames	Royal Botanical Gardens Kew
Brunel University, Uxbridge Computing Unit	Royal Marsden Hospital Sutton
Central Electricity Generating Board Dungeness 'A' Nuclear Power Station Dungeness 400kV Substation	SEGAS (South Eastern Gas) Croydon
Esso Refinery Fawley	Shell Haven Refinery Essex
Freemans, plc Peterborough	Shell Research Ltd Sittingbourne Research Centre
Institute of Naval Medicine Alverstoke	STC Standard Telecommunication Laboratories Ltd Harlow

## Visits to Cambridge and Oxford

Thursday, 2 August

### Cambridge

University of Cambridge  
University Chemical Laboratory  
University of Cambridge  
Department of Physics  
Mullard Radio Astronomy Observatory  
Downing College  
Afternoon tour of the City and Colleges

### Oxford

University of Oxford  
Medical School  
John Radcliffe Hospital  
Oxford  
St Catherine's College  
Afternoon tour of the City and Colleges

## Topics for Tonight

Thursday 2 August	20.00	Astor College 'Will the decrease in fossil fuels cause deterioration of life on Earth as we know it?' introduced by Philip Challis
	20.00	College Hall 'Can we successfully tamper with nature — and should we?' introduced by Colin Hardwick 'Computers Robotics and Automation — evils or necessities?' introduced by John O'Dea

## Social Programme

Thursday 23 July	20.00	Welcome Disco Empire Rooms, Tottenham Court Road, London WC1
Friday 3 August	20.00	International Evening University of London Union Malet Street, London WC1
Tuesday 6 August	20.00	Farewell Disco Empire Rooms, Tottenham Court Road, London WC1

## **Residential Staff of the London International Science Fortnight, 1984**

<b>ASTOR COLLEGE</b> Charlotte Street London W1P 1LD	Deputy to the Director	Roger Mulberge
	Host	Deborah Vaughn
	Deputy Host	Gareth McKinley
	Counsellors	Luis Antunes Steven J Trezise
<b>COLLEGE HALL</b> Malet Street London WC1E 7HZ	Host	Miguel Forte
	Deputy Host	Charles Muller
	Special Duties (Entertainments)	John O'Dea
	Counsellors	Siobhan O'Donovan Richard Oakley
<b>INTERNATIONAL HALL</b> Brunswick Square London WC1	Host	Colin Hardwick
	Counsellor	

KEY TO MAP

- A Astor College
- B College Hall
- C International Hall
- D University of London Union
- E Empire Rooms
- F Bloomsbury Centre Hotel
- G St Pancras Station
- H Euston Station
- I Euston Square Station
- J Warren Street Station
- K Goodge Street Station
- L Tottenham Court Road Station
- M Russel Square Station



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**TWENTY SEVENTH**  
**London International Youth Science Fortnight**  
**will take place from 31 July to 14 August, 1984**



**A People to People  
International Youth Project**

**LIYSF Ltd, PO Box 159, London, SW10 9QX, United Kingdom**